

WHAT IS CLAIMED IS:

- 1        1. A bus brace comb assembly for use in a switchgear assembly,  
2        the switchgear assembly having a channel bus bar for conveying electrical  
3        current in each phase, to hold the bus bar in place against magnetic  
4        forces associated with short-circuit currents in the switchgear bus bar,  
5        the bus brace comb assembly comprising:
  - 6              a front comb assembly including a first bus clip configured to  
7        position the bus bar and a front brace coupled to the bus clip; and
  - 8              a rear comb assembly including an interlock clamp configured  
9        to engage the channel bus bar and second bus clip secured to the  
10      interlock clamp with a fastener and a rear brace coupled to the interlock  
11      clamp/bus clip assembly, wherein a flange of the channel bus bar is  
12      pinched between the rear brace and the interlock clamp/bus clip assembly  
13      to secure the channel bus bar.
- 1        2. The bus brace comb assembly of claim 1, including a third bus  
2        clip a spaced-distance from the first bus clip and coupled to the front  
3        brace.
- 1        3. The bus brace comb assembly of claim 1, wherein the front  
2        brace and rear brace are configured to couple with a plurality of bus clips  
3        in a multiple phase switchgear assembly.
- 1        4. The bus brace comb assembly of claim 3, wherein the bus clips  
2        are E-shape.
- 1        5. The bus brace comb assembly of claim 1, wherein each bus  
2        brace comb is configured to receive multiple channel bus bars.

1       6. The bus brace comb assembly of claim 3, including an insulation  
2       cover.

1       7. A switchgear assembly including a channel bus bar for each  
2       electric power phase and for conveying electric current, with the channel  
3       bus bar maintained in position by a bus brace comb assembly and braced  
4       against magnetic forces associated with short-circuit currents in the  
5       switchgear bus bar by the bus brace comb, the bus brace comb assembly  
6       comprising:

7             a front comb assembly including a first bus clip configured to  
8       position the bus bar and a front brace coupled to the bus clip; and

9             a rear comb assembly including an interlock clamp configured  
10      to engage the channel bus bar and second bus clip secured to the  
11      interlock clamp with a fastener and a rear brace coupled to the interlock  
12      clamp/bus clip assembly, wherein a flange of the channel bus bar is  
13      pinched between the rear brace and the interlock clamp/bus clip assembly  
14      to secure the channel bus bar.

1       8. The switchgear assembly of claim 7, including a third bus clip a  
2       spaced-distance from the first bus clip and coupled to the front brace.

1       9. The switchgear assembly of claim 7, wherein the front brace  
2       and rear brace are configured to couple with a plurality of bus clips in a  
3       multiple phase switchgear assembly.

1       10. The switchgear assembly of claim 9, wherein the bus clips  
2       are E-shape.

1       11. The switchgear assembly of claim 7, wherein each bus clip is  
2       configured to receive multiple channel bus bars.

1           12. The switchgear assembly of claim 9, including an insulation  
2         cover.

1           13. A method of securing and positioning channel bus bars in  
2         each power phase of a switchgear assembly with a bus brace comb  
3         assembly having a front comb assembly and a rear comb assembly, the  
4         method comprising the steps of:

5                 positioning each channel bus bar in a bus clip of the front  
6         comb assembly;

7                 installing an interlock clamp to couple with at least one  
8         flange of a channel bus bar in each power phase;

9                 fastening another bus clip to the interlock clamp; and

10                 coupling a rear brace to each bus clip/interlock clamp  
11         assembly, wherein the flange of the channel bus bar is pinched in the  
12         interlock clamp/bus clip assembly to secure the channel bus bar.

1           14. The method of claim 13, including the step of coupling a  
2         front brace to the bus clip of the front comb assembly.

1           15. The method of claim 13, including the step of positioning a  
2         third bus clip a spaced distance from the bus clip of the front comb  
3         assembly.

1           16. The method of claim 13, wherein each channel bus bar of  
2         each power phase is coupled to the front comb assembly and rear comb  
3         assembly.

1           17. The method of claim 16, including the step of installing an  
2         insulation cover on the bus brace comb assembly.

1           18. The method of claim 13, wherein each bus clip is E-shaped.